

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended): A ferroelectric liquid crystal display, comprising:
- an upper substrate provided with a transparent electrode and an alignment film;
 - a lower substrate opposed to the upper substrate and provided with a pixel electrode and an alignment film; and
 - a ferroelectric liquid crystal ~~injected~~ between the upper and lower substrates ~~and containing, the ferroelectric liquid crystal having~~ a small amount of photo crosslinkable or light-hardening polymer to form a polymer network,
- wherein the polymer network is formed after the ferroelectric liquid crystal is changed from a nematic phase or an isotropic phase into a smectic phase and maintains an uniform alignment of the ferroelectric liquid crystal.
2. (Original): The ferroelectric liquid crystal display according to claim 1, wherein a temperature during injection of the ferroelectric liquid crystal is above a temperature causing a phase transition from a smectic phase into a nematic phase.
3. (Currently Amended): The ferroelectric liquid crystal display according to claim 1, wherein a direct current voltage is applied to the electrodes of the upper and lower substrates ~~when~~ such that the ferroelectric liquid crystal is uniformly aligned.
4. (Currently Amended): The ferroelectric liquid crystal display according to claim 1,

wherein a temperature is varied after injection of the ferroelectric liquid crystal such that the ferroelectric liquid crystal is changed from a the nematic phase or the isotropic phase into a smectic phase at least once when the ferroelectric liquid crystal is uniformly aligned.

5. (Currently Amended): The ferroelectric liquid crystal display according to claim 1, wherein the photo crosslinkable or light-hardening polymer forms a the polymer network when exposed to a light intensity range of an ultraviolet light of about 1 to about 5 mW/cm².

6. (Original): The ferroelectric liquid crystal display according to claim 1, wherein the photo crosslinkable or light-hardening polymer forms a polymer network when exposed to ultraviolet light such that a range of total exposure energy of the ultraviolet light exposed when the polymer is formed is about 240 to about 1200 mJ/cm².

7. (Original): The ferroelectric liquid crystal display according to claim 5, wherein an ultraviolet lamp for generating the ultraviolet light is selected from any one of a Hg lamp and a Xe lamp.

8. (Original): The ferroelectric liquid crystal display according to claim 6, wherein an ultraviolet lamp for generating the ultraviolet light is selected from any one of a Hg lamp and a Xe lamp.

9. (Original): The ferroelectric liquid crystal display according to claim 7, wherein a wavelength range of the ultraviolet light is about 365 ± 100 nm.

10. (Original): The ferroelectric liquid crystal display according to claim 8, wherein a wavelength range of the ultraviolet light is about 365 ± 100 nm.

11. (Currently Amended): A method of fabricating a ferroelectric liquid crystal display, comprising ~~the steps of~~:

joining an upper substrate provided with a transparent electrode and an alignment film to a lower substrate opposed to the upper substrate and provided with a pixel electrode and an alignment film;

injecting a ferroelectric liquid crystal having a photo crosslinkable or light-hardening polymer between the joined upper and lower substrates;

uniformly aligning the ferroelectric liquid crystal; and

exposing an ultraviolet light to the uniformly aligned ferroelectric liquid crystal to form a polymer network after the ferroelectric liquid crystal is changed from a nematic phase or an isotropic phase into a smectic phase.

12. (Original): The method according to claim 11, wherein a temperature upon injection of the ferroelectric liquid crystal is above a temperature which causes a phase transition from a smectic phase into a nematic phase.

13. (Original): The method according to claim 11, wherein a direct current voltage is applied to the electrodes of the upper and lower substrates when the ferroelectric liquid crystal is uniformly aligned.

14. (Currently Amended): The method according to claim 11, wherein a temperature is varied

such that the ferroelectric liquid crystal is changed from a the nematic phase or the isotropic phase into a the smectic phase at least once when the ferroelectric liquid crystal is uniformly aligned.

15. (Original): The method according to claim 11, wherein a light intensity range of an ultraviolet light exposed when the polymer network is formed is about 1 to about 5 mW/cm².

16. (Original): The method according to claim 11, wherein a range of total exposure energy of the ultraviolet light exposed when the polymer is formed is about 240 to about 1200 mJ/cm².

17. (Original): The method according to claim 11, wherein an ultraviolet lamp for generating the ultraviolet light is selected from any one of a Hg lamp and a Xe lamp.

18. (Original): The method according to claim 17, wherein a wavelength range of the ultraviolet light is about 365 ± 100 nm.

19. (Currently Amended): A ferroelectric liquid crystal cell, comprising:

an upper substrate provided with a common electrode and an alignment film;

a lower substrate provided with a TFT array layer and an alignment film; and

a ferroelectric liquid crystal provided in a space between the upper and lower substrates ~~and containing, the ferroelectric liquid crystal having a~~ photo crosslinkable or light-hardening polymer to form a polymer network,

wherein the polymer network is formed when the ferroelectric liquid crystal has a smectic phase and maintains an uniform alignment of the ferroelectric liquid crystal.

20. (Currently Amended): The ferroelectric liquid crystal cell according to claim 19, wherein the ferroelectric liquid crystal has a smectic phase ~~selected~~ changed from one of an isotropic phase and a nematic phase.

21. (Currently Amended): The ferroelectric liquid crystal cell according to claim 20, wherein the ferroelectric liquid crystal is phase-changed from a the nematic phase or the isotropic phase into a the smectic phase and simultaneously aligned in the direction of one of the two states.

cm
Q
22. (Original): The ferroelectric liquid crystal cell according to claim 19, wherein a direct current voltage is applied to the upper and lower substrates while slowly lowering a temperature of the ferroelectric liquid crystal.

23. (Currently Amended): The ferroelectric liquid crystal cell according to claim 19, wherein an ultraviolet light is exposed to the ferroelectric liquid crystal to make a the polymer network.

24. (Original): The ferroelectric liquid crystal cell according to claim 23, wherein a light intensity range of the ultraviolet light exposed when the polymer network is formed is about 1 to about 5 mW/cm².

25. (Original): The ferroelectric liquid crystal cell according to claim 23, wherein a total exposure energy ranged of the ultraviolet light is about 240 to about 1200 mJ/cm².

26. (Original): The ferroelectric liquid crystal cell according to claim 23, wherein an ultraviolet

lamp for generating the ultraviolet light is selected from any one of a Hg lamp and a Xe lamp.

27. (Original): The ferroelectric liquid crystal cell according to claim 23, wherein a wavelength range of the ultraviolet light is about 365 ± 100 nm.

28. (Currently Amended): The ferroelectric liquid crystal cell according to claim 19, wherein when a temperature of the ferroelectric liquid crystal is lowered to a temperature which causes a phase change into a the smectic phase, the ferroelectric liquid crystal is uniformly aligned.

29. (New): The ferroelectric liquid crystal display according to claim 1, wherein the uniform alignment is a mono-domain alignment.

30. (New): The method according to claim 13, wherein the polymer network maintains the uniform alignment.

31. (New): The method according to claim 30, wherein the uniform alignment is a mono-domain alignment.
